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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,808	01/25/2006	Walter Apfelbacher	32860-000986/US	9694
30596 7590 09/30/2009 HARNESS, DICKEY & PIERCE, P.L.C. P.O.BOX 8910 RESTON, VA 20195				
EXAMINER				
MAL TIEN HUNG				
ART UNIT		PAPER NUMBER		
2836				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/565,808

**Applicant(s)**

APFELBACHER ET AL.

**Examiner**

TIEN MAI

**Art Unit**

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,5-9,11-15,17 and 19-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-9,11-15,17 and 19-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/06)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Applicant's response of 06/22/2009 has been entered and considered. Upon entering amendment, claims 1, 5, 14, 19 and 21-23 have been amended; claims 24 have been added; claim 16 has been cancelled; drawing objections and claim objections have been withdrawn.

### ***Claim Objections***

2. Please change "the switching device" in line 3 to "the operating switching device".

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1 and 19 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3, 5-9, 11, 13-15, 17 and 19-23, are rejected under 35 U.S.C. 103(a) as being unpatentable over Grytko et al. (US 3,599,135, "Grytko") in view of James (US 6,600,292, "James") and Jehlicka et al. (US 6,710,698, "Jehlicka").

6. **Regarding claims 1 and 19**, Gryctko discloses circuit protection arrangement including coordinated operation of a circuit breaker and a current limiting fuse, the apparatus (fig. 2) comprising:

an operating switching device (102 and 104 as shown in fig. 1A) configured to switch a load (not shown) on and off;

a disconnection device (190 together with fuse clip) on external surface of the circuit breaker (see fig. 1), the disconnection device being configured to disconnect an input terminal (100) from an output terminal (110), connectable to the load to be driven; and

a protective device configured to protect the load to be driven against short circuits, the protective device including at least one fuse in each phase (col. 5, lines 33-44 and col. 6, lines 45-61) for disconnection in the event of a short circuit, i.e., current limiting device, wherein the operating switching device, the disconnection device and the protective device being connected in series and being integrated in a housing (20) (col. 4, lines 50-53).

Gryctko does not explicitly disclose the at least one fuse is in the form of a semiconductor protective fuse. James discloses a semiconductor fuse (3) being used to protect the system against overcurrent (col. 2, lines 55-59). Jehlicka teaches several advantages of a semiconductor fuse, i.e. the semiconductor fuse does not require replacing after being tripped, and is ready for operation again right away (col. 1, lines 45-62). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the device of Gryctko and employ a semiconductor fuse,

as taught by James, because according to Jehlicka semiconductor fuse does not have to be replaced after being tripped, and is ready for operation again right away (col. 1, lines 45-62).

7. **Regarding claims 3, 17 and 20**, Grytko discloses that the at least one fuse is removable from the housing (col. 5, lines 50-55).
8. **Regarding claim 5**, Grytko discloses that the protected device is arranged between the disconnection device and the output terminal to the load to be driven (see fig. 2).
9. **Regarding claim 6**, Grytko discloses that the disconnection device, when in the open state, disconnects and release the at least one fuse from at least one contact for removal (col. 5, line 50 – col. 6, line 23).
10. **Regarding claim 7**, Grytko discloses rotary mechanism for opening and closing the disconnection device (col. 5, lines 55-66).
11. **Regarding claim 8**, Grytko discloses that the at least one fuse is in the form of a cylindrical fuse (see fig. 1).
12. **Regarding claim 9**, Grytko discloses that the disconnection device includes the functionality of a fused load disconnecter (col. 5, line 50 – col. 6, line 23).
13. **Regarding claim 11**, Grytko discloses that the at least one fuse is arranged in a moving part (fuse clip) of the disconnection device.
14. **Regarding claim 13**, Grytko discloses that electronic switching points are bridgeable by mechanical contact (102 and 104) (see fig. 2).

15. **Regarding claim 14**, Grytko discloses an overload device (124 and 130) arranged in series with the operating switching device, the disconnection device and protective device, and between the operating switching device and the load (col. 5, lines 19-32 and col. 4, lines 50-54).

16. **Regarding claim 15**, Grytko discloses the overload device includes an overload relay (130) (col. 5, lines 19-32).

17. **Regarding claim 21**, the circuit breaker of Grytko is an electromechanical switching device.

18. **Regarding claim 22**, Grytko discloses input and output terminals (100 and 110) on an exterior of the housing of the circuit breaker (see fig. 2).

19. **Regarding claim 23**, Grytko discloses a handle (part of the fuse holder 190) on exterior of the housing of the circuit breaker, the handle being connected to the moving part (see fig. 7).

20. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grytko in view of James, Jehlicka, and further in view of Price (US 4,317,036, "Price").

21. **Regarding claim 12**, Grytko, James and Jehlicka disclose the limitations as discussed above. Neither Grytko nor James nor Jehlicka explicitly discloses a monitor device for recording of tripping of the fuse. Price discloses a fuse is monitored continuously by voltmeter to indicate a blown fuse condition (col. 2, lines 25-65). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the device of Grytko in view of James and Jehlicka and employ a

monitoring device for the fuse, as taught by Price, in order to provide indication of blown fuse to personnel.

22. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gryctko in view of James, Jehlicka, and further in view of Nakano et al. (US 4,752,755, "Nakano").

23. **Regarding claim 24**, Gryctko, James and Jehlicka disclose the limitations as discussed above. Neither Gryctko nor James nor Jehlicka explicitly discloses the input and output terminals are on a same exterior surface of the housing. Nakano discloses a circuit breaker having input and output terminals (68) on a same exterior surface of a housing (62) (col. 3, lines 47-56). Choosing a location for the input and output terminals is viewed to be rearrangement of parts, which is dependent upon the operating condition and design requirement. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to locate the input and output terminals on the same exterior surface of the housing, as taught by Nakano, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950).

### ***Conclusion***

24. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

25. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIEN MAI whose telephone number is 571-270-1277. The examiner can normally be reached on M-Th: 8:00-7:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jared Fureman can be reached on 571-272-2391. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/Tien Mai/  
Examiner, Art Unit 2836

/Danny Nguyen/  
Primary Examiner, Art Unit 2836